

**FCC BROADBAND ADOPTION LIFELINE PILOT PROGRAM
APPLICATION NARRATIVE SUBMITTED BY
ELIGIBLE TELECOMMUNICATIONS CARRIERS
SACRED WIND COMMUNICATIONS, INC. AND
NAVAJO COMMUNICATIONS COMPANY, INC. AND**

**THEIR PARTNERS:
NAVAJO NATION,
NATIVE RESOURCE DEVELOPMENT,
1ST-MILE INSTITUTE,
LONE EAGLE CONSULTING,
DAVIS COMMUNITY NETWORK,
GLOBAL CENTER FOR CULTURAL ENTREPRENEURSHIP, AND
PIVOT GROUP, LLC**

Introduction

Sacred Wind Communications, Inc. (hereinafter referred to as SWC), an eligible telecommunications carrier (ETC) headquartered in Yatahey, New Mexico with corporate offices at 7801 Academy Road, NE, Building 2, Albuquerque, New Mexico 87109, and Navajo Communications Company, Inc. (hereinafter referred to as Frontier), an eligible telecommunications carrier and subsidiary of Frontier Communications Corporation, a publicly traded Delaware corporation, and its partners, the Navajo Nation, Native Resource Development, 1st-Mile Institute, Lone Eagle Consulting, Davis Community Network, Global Center for Cultural Entrepreneurship, and Pivot Group, LLC, submit this application to the Federal Communications Commission's Wireline Competition Bureau for consideration of a pilot project under its Broadband Adoption Lifeline Pilot Program (hereinafter referred to as the "FCC Pilot Program") competition. SWC and Frontier, hereinafter may be referred to collectively as the ETCs or the Applicants.

If funding is provided to the Applicants and their partners, the Pilot Program will be titled "Navajo Broadband Lifeline Pilot Program", hereinafter referred to as "the Program."

The Program's study area is an ideal testing ground for low income consumer usage of broadband services in that the majority of the Applicants' customer base falls below the poverty level. In fact, nearly 79 % of SWC's and 55% of Frontier's current customers participate in the Tribal Lifeline program and approximately 90 % of newer, even more remotely located customers are Tribal Lifeline eligible. The program will be seeking all appropriate authorizations from the Navajo Nation including, but not limited to, the Navajo Nation Institutional Review Board authorization and review.

In the Applicants' experience since having introduced broadband to tribal lands, the Navajo People, regardless of income status, desire broadband services; but, special attention to their particular circumstances is required to generate usage among the lower income. In SWC's more recent broadband related experiences, for example, at the time of its inception as an ETC, virtually none of its tribal customers had access to broadband, and 15 % of the company's voice customers subscribed to mere dial-up Internet service. SWC introduced broadband in its study area in late 2008 and, since mid-2010, it has made broadband available to 99 % of its voice customers. Broadband subscriptions increased over 100 % in 2010 over 2009, and currently 30% of Sacred Wind's voice customers subscribe to broadband services – 40 % of whom subscribe to speeds at or above 1.5 Mbps. While a praiseworthy achievement to increase broadband *subscription* from zero to 30% in two years, true success will only be realized once the Applicants' low income customers reach broadband subscription levels common to the rest of the country, which is the purpose of the FCC's pilot program.

This record of broadband subscription, too, is not to infer that the Applicants' customers, especially those among the adult population without children in the home, sought out broadband services as soon as they were made available. A different level of community awareness of the use of broadband services and different economic circumstances involving a people who have been deprived of even basic telecommunications services up until the last decade, add special challenges to broadband acceptance in these, and perhaps other, tribal areas.

As an example, SWC preceded its broadband offer with an RUS Community Connect Grant in 2007 with which it established a 2-year digital literacy training program reaching over 4,000 Navajo people during that 2-year period. It also delivered a series of Internet-related presentations at regularly scheduled Chapter House meetings over the last several years and SWC developed the Dinehnet portal to make the point that technology could be used to reinforce, rather than undermine, Navajo tradition. Even so, the vast majority of SWC's Internet customers initially signed up for the more affordable, lower speed services and over time a minority, but growing percentage, has been migrating to higher speeds. Frontier is experiencing the same.

Due to limitations of their own abilities to address the economic or other circumstances that might impede higher levels of broadband subscription, the Applicants realize that more needs to be done to increase their customers' usage to national levels. Both ETCs have had a good amount of experience in conducting broadband awareness training at tribal community meetings and providing computer literacy and Internet training in some areas for adult tribal members. From that, the Applicants have learned much about their customers' interests in, and concerns regarding broadband services.

SWC also conducted what may be considered the very first broadband equipment field trial on Navajo lands as part of an RUS equipment acceptance trial in 2008-2009.¹ From that equipment trial, in which 69 low income customers were provided a free laptop computer and free broadband service along with Tribal Lifeline voice service for over eight months in order to test the reliability and capacities of the fixed wireless equipment, SWC also learned much about its low income customers' usage, interests, concerns, and view of that technology medium. 100 % of those customers used broadband during the trial period and one year later 67 % had retained Internet service, some at broadband speeds and some lower. Today, after three years since the trial concluded, 33% retain Internet service, 62% of whom subscribe to 256 Kbps speed priced at \$34.95/month. That equipment trial leads SWC to make several assumptions about the relevance of the cost of Internet services, the cost of a computer, and access to training on the use of the computer -- including awareness of antivirus protections and online revenue generating opportunities -- to high broadband usage. But, what still needs to be better understood are the price points, key services, and specific minimal equipment and web-based training needs, and how to promote them properly, to raise broadband usage to national levels and retain them at those levels. For this reason, the Applicants propose under this Program a larger study base and a focus on service affordability and subsidized equipment.

FCC Pilot Program Goals

The Applicants and their partners understand that goals of the FCC Pilot Program are:

- 1) to gather high-quality data that will help identify effective approaches to increasing broadband adoption and retention by low-income consumers,
- 2) to utilize control groups to assess the impact on adoption of the project, and design their Program as a field experiment using standard best practices,
- 3) to test the impact of broadband adoption with variations in the monthly discount (phased down over time or constant) over a 12 month period, and
- 4) to submit a detailed description of the experimental design and other protocols used as suitable for a replication study, determining what variations on broadband service offerings will be tested, and how the project will randomize variations on broadband service offerings.

The Applicants and their partners can affirm that this proposal meets all of the goals and will satisfy all of the requirements of the FCC's Broadband Adoption Lifeline Pilot Program.

¹ RUS field trial of Airspan radio equipment using 3.65 Ghz spectrum.

1. Gathering High-Quality Data

A successful field study requires the collection of objective information to produce good, high-quality data that can be used to identify problems and propose solutions. To provide the FCC with the type and quality of data it seeks, the Applicants and their partners will employ an experimental design approach and will develop a research design, process, and quality controls that will enable them to produce reliable data for the control and treatment groups. The Program will be carefully structured to avoid bias and to minimize variables that would influence results. The Applicants will work with their partner Pivot Group, LLC to design a questionnaire that will elicit high-quality data that indicate customers' ability to retain and acquire broadband at speeds of 1.0 Mbps, 1.5 Mbps, 3.0 Mbps and 4.0 Mbps. From a collective subscriber base of nearly 10,000 voice and broadband customers the offer of discounted service and other incentives will be made to over 3,000 customers who do not subscribe to broadband service. The Program is also designed to build confidence in its data collection through the use of comparably sized study groups and comparably matched customers by demographic circumstances (income level, age, size of household, and income).

In collaboration with the Navajo Nation, the Applicants will promote the program through bilingual presentations at Navajo Nation Chapter meetings in the relevant geographic area, and will post Program information on Chapter community bulletin boards. The Applicants will also include information about the Program in customer invoices and will mail letters and/or postcards to randomly targeted treatment group candidates. The Applicants and the Navajo Nation will collaborate on a notice in the Navajo Nation Times. If feasible, the Navajo Nation will assist in the outreach through programs within the Navajo Division of Health and Navajo Division of Social Services that administer qualifying consumer participation programs identified in the FCC low-income rules.

No less than two health care organizations, interested in developing broadband-based services for their tribal clients, have planned to participate in the Program during the outreach and data collection phases: Native Resource Development and Navajo Nation Division of Health. The Navajo government will assist the Program in all appropriate matters to ensure cultural sensitivity is maintained while the partners design the Program for integrity and effectiveness.

The Navajo Nation Telecommunications Regulatory Commission (NNTRC) Office will be the lead agency for the Navajo Nation in identifying and coordinating Navajo Nation divisions and departments for the Program. The NNTRC Office already acts as the technical advisor for broadband related projects for Navajo Nation agencies, and will advertise the Program as an opportunity for the key Navajo Nation agencies to learn about the FCC Lifeline

Program while promoting broadband adoption with their clientele. The NNTRC will coordinate with the Pivot Group in outlining interaction and outreach guidelines for the Navajo agencies to ensure the integrity of the study is maintained.

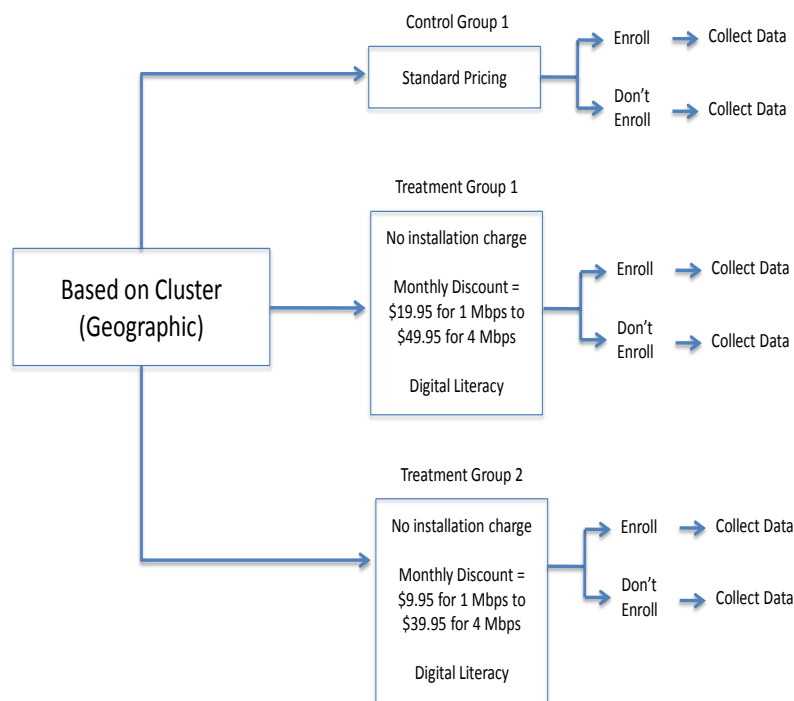
2. Utilizing Control and Treatment Groups – Designing Program as Field Experiment

This Program will confine its treatment group customer base to the eastern portion of the Navajo Nation in northwest New Mexico and will include for its control group its customer base in a geographically separated area of the Navajo Nation in northeast Arizona and the eastern portion of the Navajo Nation in northwest New Mexico. The Program is designed from conception to be inclusive of all Navajo government agencies that are engaged with target low-income consumers on the Navajo Nation.

For the control groups, the Program will randomly select 400 individuals of the approximate 632 voice and Internet Tribal Lifeline customers served by SWC in its northern exchange, and 300 of the more than 5,000 customers served by Frontier in its tribally serving designated wire centers in Arizona. (See Chapter listings in Table 3 and 4 below.) Those individuals' use or lack of use of broadband services will be studied without engaging the customers until the conclusion of the 12-month Program period at which time they will be contacted for purposes of responding to a questionnaire. This set of customers will not be offered any Program-related broadband discounts, equipment discounts, digital literacy training, or any other inducements to either increase their broadband speeds or to subscribe to broadband services.

Recruitment of treatment group members will be conducted in SWC's southern exchange, an area over 100 miles distant from its northern exchange where the control group will be studied, and in all of Frontier's wire centers located on Navajo lands in northwest New Mexico. In SWC's southern exchange chapter areas SWC has approximately 1,000 voice subscribers not using broadband. Of those, 78.8 percent are Tribal Lifeline customers. Additionally, SWC is hooking up no less than 60-70 new subscribers every month, of which nearly 90 percent are eligible for Tribal Lifeline service. In Frontier's 12 New Mexico wire centers it has approximately 2,400 voice subscribers not using broadband. The percentage of Tribal Lifeline eligible subscribers among those subscribers in Frontier's treatment group area is similar to SWC's. Recruitment of treatment group members can begin during the Program's first three months.

The enrollment process of program participants can be diagrammed as follows:



The Applicants and their partners will utilize field experiment principles as espoused in John A. List's *Why Economists Should Conduct Field Experiments and 14 Tips for Pulling One Off*,² which include:

1. Using experts to develop the field experiment and analyze the data.
2. Engage a meaningful and similar sample size for both the control and treatment groups.
3. Secure buy-in and commitment from community leaders, in this case, the Navajo Nation President and officials of each affected Chapter.
4. Recruit as partners entities and individuals committed to the success of the Program, especially those with "skin in the game" and share common broadband expansion goals.

3. Testing the Impact of Discounts and Other Variables on Broadband Adoption

The Applicants will provide a discount to each of their treatment groups to test customer acceptance of higher broadband speeds. SWC will test for acceptance of 1.0 Mbps, 1.5 Mbps,

² <http://www.aeaweb.org/articles.php?doi=10.1257/jep.25.3.3>

3.0 Mbps, and 4.0 Mbps at various pricing levels during a 12 month period. Frontier will test for adoption at the 1.0Mbps speed based on current customer density and network configuration. Frontier's service is provided via copper facilities infrastructure with extreme distances from the back haul. Frontier's operating area averages only 1.2 customers per square mile and the costs of providing service are extremely high. Frontier has focused on providing the majority of customers with access to broadband service rather than making increased speeds available to only a few. With the results from this pilot, as well as continuing network efficiency improvements and future expansion, Frontier is committed to further improvements in service to its customers in the future. The offerings will be extended to current Lifeline customers who do not subscribe to a broadband service and to new subscribers. The discounted Lifeline rates available to the treatment group for broadband services are listed below.

SWC and Frontier desire to increase the adoption of broadband within the low-income population of the portions of the Navajo Nation that they serve. However, based on their collective experiences in the marketplace, SWC and Frontier believe adoption is low due to the key variables of monthly price (affordability), a lack of digital literacy by the Navajo Nation, and a lack of affordable equipment (primarily, computers to access the Internet).

The Applicants will not offer stand alone broadband service since their Tribal Lifeline voice service is offered as a primary service for no charge to Tribal Lifeline eligible customers. Moreover, the Applicants do not recommend strong promotion of bundled service offerings beyond a basic voice and discounted broadband Lifeline package for Tribal Lifeline customers due to the high degree of payment delinquencies the companies experienced in the past. Too often, individuals who reside with the customer of account had access to the customer's services, incurring charges that the customer could not bear. As a result, the companies offer Tribal Lifeline customers unlimited long distance for \$20.00 per month or other long distance services on a pre-paid basis, and do not actively promote the sale of advanced voice services to Tribal Lifeline customers in deference to their economic circumstances, but will provide such services if they request them. The Applicants submit that added bundled services to the program's broadband service offerings might increase the potential for payment delinquencies and could thus harm the field trial.

Through this project, SWC and Frontier will study the impact of the monthly price, availability of digital literacy and provision of free equipment (Notebook PCs and broadband modem) on the adoption of broadband by Lifeline customers within the Navajo Nation. In this project, customers will be separated into comparable groups based on geography.

Table 1. Control & Treatment Group Variables						
	SWC			Frontier		
Group	Control Group 1	Treatment Group 1	Treatment Group 2	Control Group 2	Treatment Group 3	Treatment Group 4
Description	New Mexico - Northern	New Mexico - Southern	New Mexico - Southern	Arizona	New Mexico	New Mexico
Total study size	630	500	500	5,900	2,100	same
Group size goal	400	200	200	300	150	150
Variables	No Treatment	Discounted Monthly Price of \$19.95 for 1 Mbps or \$49.95 for 4 Mbps	Discounted Monthly Price of \$9.95 for 1 Mbps or \$39.95 for 4 Mbps	No Treatment	Discounted Monthly Price of \$9.95 for 1 Mbps	Discounted Monthly Price of \$9.95 for 1 Mbps
		No Installation/Activation Charges	No Installation/Activation Charges		No Installation/Activation Charges	No Installation/Activation Charges
		Digital Literacy	Digital Literacy		Digital Literacy	Digital Literacy
		Free Modem	Free Modem			Free Notebook PC

Treatment groups 1 and 2 in SWC's service territory will be offered a different level of discounts for broadband service, along with free installation and modem, in order to study which set of rates seems a viable inducement. Each treatment group will be geographically separate from the other. All treatment group customers will receive Webinar-based digital literacy training. Treatment group 4 will also include a free Notebook PC to see how this variable impacts results. SWC control groups will receive standard advertising (broadband availability) and pricing including the 1.0 Mbps, 1.5 Mbps, 3 Mbps and 4.0 Mbps offerings at standard rates.

4. Detailed Description of Experiment Design

The geographical approach to developing the groups is being used so that the outreach and treatment can be effectively administered and studied³. This is important as the Commission, Sacred Wind and Frontier desire to design the study to replicate the actual conditions of a potential future offering to low-income customers⁴. In the case of Frontier, using its wire centers in Arizona as the control group allows the company to administer the inducements for the treatment group to all of its wire centers in its New Mexico serving area. Similarly for Sacred Wind, the wide geographic separation between its northern exchange from its southern exchange allows SWC to promote the inducements effectively (outreach) through chapter houses present in each area (see Applicants' program areas in Tables 3 and 4).

When potential customers for each group initiate a contact regarding broadband, the respective company's customer service staff will first identify in what geographical area the customer resides. Based on this factor, they will then be told about the pilot Program and will be provided the appropriate offer (control vs. treatment groups). Treatment group customers that desire to participate will need to consent to provide data to USAC via an online survey before they are enrolled in the program⁵.

SWC and Frontier will collect data as follows:

1. Inquiries by control group⁶
2. Inquiries by treatment group
3. Action taken by control group (signed up for broadband vs. did not sign up)
4. Action taken by treatment group (signed up for broadband vs. did not sign up)
5. Control group Retention - Length of time new control group customers keep service
6. Treatment group Retention - Length of time new treatment group customers keep service
7. Customers that upgrade speed after adoption (control vs. treatment groups)
8. Where treatment group customers fall delinquent on their monthly bills – inquiry as to reason for failure to pay.

³ Effective outreach – and implementation of the proposed treatment including digital literacy - to the Navajo people will be maximized via partnership with tribal social services organizations. This cannot be reasonably secured if randomization - or a selective participation approach - is implemented within a given chapter house as it would prevent adequate outreach and would also cause confusion within the social service organizations required for outreach and digital literacy. For example, it would be unrealistic to expect members of a given chapter house to consistently administer the treatment if they had to identify and monitor if the respondent was in a control group versus a treatment group. The proposed plan allows a given social chapter house (if applicable) or services organization within the treatment group area to promote the treatment to all eligible low-income customers.

⁴ A Lifeline program for broadband would be broadly communicated and advertised within a market in order to maximize participation by those in need of the benefits of the program.

⁵ This is the data as detailed on the Low Income Broadband Pilot Program Reporting Form.

⁶ An Inquiry is a call or visit regarding broadband by a prospect in response to outreach/advertising.

Upon conclusion of the experiment, the Applicants will analyze data related to inquiry, adoption and retention activity by the treatment groups compared to the control groups. In addition, a survey will be sent to the control group and treatment group upon conclusion of the pilot to study. This survey will be provided in a mail or online form and will seek to understand:

1. Reasons for lack of adoption by customers that did not sign up for broadband service (control and treatment group).
2. Reasons for dropping service for customers that dropped service after signing up (control and treatment Ggroup).
3. Input from treatment group customers regarding the value and impact of variables (discount, digital literacy, hardware) in their decision to purchase and/or retain broadband service
4. Value of broadband/impact of broadband – how broadband adoption has improved their quality of life
5. Classification questions (age, gender, household size, etc.)
6. Other questions TBD based on issues/opportunities that arise during program

The data from this project will inform the Commission, SWC and Frontier regarding the causal impacts of the treatment variables (monthly discount, the availability of digital literacy, and provision of affordable computer equipment) on the adoption and retention of broadband amongst low-income customers within primarily tribal lands, and specifically the Navajo Nation.

Statistical bias will be mitigated through the following:

- By the establishment of comparable groups (the control group and treatment group are of similar socio-economic characteristics in a similar geography). These groups also have similar current broadband adoption rates (penetration).
- The establishment of clear geographical boundaries for the control group and treatment group allows us to minimize the number of customers in a given chapter that would receive the wrong offer. (Control group customers receiving the treatment group offer and vice versa.)
- The use of chapter house boundaries will allow us to implement an effective outreach plan that uses traditional communication and advertising methods combined with collaboration with the social services organizations that serve that respective chapter. This ensures that lack of outreach does not adversely impact results.
- Related to the above, by promoting broadband and the benefits of broadband to both groups we mitigate outreach as a variable that would bias results. In other words, it is important to promote the availability and benefits of broadband to the Control Group – even though they will not receive the treatment group’s offer – to mitigate lack of communication with the control group as a variable influencing result.

This project will obtain sufficient sample size by establishing groups of sufficient size to study the impact of the planned treatment.

The discounts and resulting rates for broadband services offered to Lifeline customers for the full 12-month term of the pilot project will be as follows:

Table 2. Broadband Discounts To Be Offered in Program							
SWC Treatment Group 1				SWC Treatment Group 2			
Speed	Standard Price	Monthly discount	Project Lifeline rate	Speed	Standard Price	Monthly discount	Project Lifeline rate
1.0 Mbps	49.95	30.00	19.95	1.0 Mbps	49.95	40.00	9.95
1.5 Mbps	64.95	40.00	24.95	1.5 Mbps	64.95	50.00	14.95
3.0 Mbps	79.95	40.00	39.95	3.0 Mbps	79.95	50.00	29.95
4.0 Mbps	89.95	40.00	49.95	4.0 Mbps	89.95	50.00	39.95
Frontier Treatment Group 3 (with no free PC)				Frontier Treatment Group 4 (with free PC)			
1.0 Mbps	49.95	40.00	9.95	1.0 Mbps	49.95	40.00	9.95

4a. Nonrecurring charges used as a variable

Both Applicants currently charge customers an installation or modem configuration fee as well as either a modem purchase charge or modem rental fee for their broadband subscribers, which are waived for some subscribers who sign two-year contracts. Frontier normally charges a \$6.00/month modem rental fee in lieu of selling the equipment. Not all customers accept contracts and must then pay the upfront charges. Since the Applicants maintain that such nonrecurring charges could also serve as impediments to broadband subscription on the part of low income customers who refuse or hesitate to subscribe to long term contracts, the Applicants propose to test a simple waiver of the larger upfront, nonrecurring charges for their treatment group customers. SWC's upfront, nonrecurring broadband charges are \$99.00 for on premise modem configuration and \$65.00 for modem purchase, and Frontier's upfront, nonrecurring broadband charges are \$134.99 for installation and modem configuration. SWC and Frontier will offer free installation and modem configuration for their treatment group customers and will cover the costs themselves of providing a free modem to those same customers. Such offer of no contract, free installation and modem will not be made outside of the treatment groups.

The Applicants believe that, based on their customers' current broadband take rates and SWC's particular experience in conducting an 8-month broadband *equipment* field trial in 2008-9, as described earlier, these discounts and incentives will be a good test of sufficiency as inducements to increase broadband subscription.

4b. Other Service Offering Variables

As part of the Applicants' broadband offer, customers will receive free password-protected access to the SWC's broadband portal, DinehNet.⁷ Quite likely, DinehNet is the most culturally oriented website developed by a telecommunications carrier for its customer body, and was designed, with tribal input, specifically to add local relevance to the broadband service. It has a wealth of information available on Navajo history, Navajo culture, and offers online Navajo language training. It also provides access to government services and medical and behavioral health information, beneficial to a population with a high incidence of diabetes, heart disease, depression and suicide. What is lacking and needs to be developed as part of this pilot project is the ability to not just access Navajo tribal government websites via DinehNet, but to access interactive online educational and cultural resources, eligibility criteria and application forms for government services, medical assistance, financial aid, and academic enrollment that are of high interest to tribal members and would save many miles and hours of drive time to and from the Navajo capital.

In collaboration with the Navajo Nation's government services agencies, DinehNet will be further developed and offered to customers during the program. This will represent a unique, tribally oriented public/private partnership intended to add personal relevance as an incentive for broadband adoption. The development or existence of a "community portal" maintained by a partner as an on ramp to the Internet for consumers, who then do not have to navigate the Internet unguided, may increase the relevance factor to a degree that it may overcome many other challenges that these regional non-adopters must overcome before embracing the Internet.

Pivot Group will also develop and promote a series of digital literacy Webinars, beginning with the more elementary and graduating to the more advanced instruction in PC and broadband usage. Those Webinars, while available to the general public, will be promoted only to customers in the Applicants' treatment group geographic areas. They will be supplemented by online toolkits and additional resources made available by 1st-Mile Institute and other Program partners. The Program partners will develop specific email messages and a schedule for the Applicants to transmit such messages to treatment group members at key times during the study period, both directing them to attend a Webinar and to cultural, educational, healthcare,

⁷ See Exhibit 3

government services, or entrepreneurial sites, as a means to promote broadband usage and further establish relevance.

The Program will also offer to a distinct treatment group in Frontier's service territory a free Notebook computer for each customer agreeing to subscribe to broadband as part of the treatment group. Those free Notebooks, estimated to ultimately total 150, will test any difference in broadband subscription behavior between those who receive the Notebooks *and* a service offering discount and those in Frontier's second treatment group, and all of SWC's treatment group customers, who only receive a service discount.

5. Applicants' ETC Identifying Information

Sacred Wind Communications, Inc.

Study Area Code: 493403

FRN: 0014860530

SWC is a wholly-owned subsidiary of Sacred Wind Enterprises, Inc., a Class C Corporation incorporated in New Mexico. Sacred Wind Enterprises also owns in full an unregulated affiliate, SW Telesolutions, Inc. which provides Internet, long distance and data transmission services.

Navajo Communications Company, Inc. (NCC)

Study Area Code: 494449

FRN: 0001671320

NCC is a New Mexico corporation providing telecommunications services in the states of New Mexico, Arizona and Utah, including the tribal lands of the Navajo Nation. It is a wholly-owned subsidiary of Frontier Communications Corporation, a publicly traded Delaware corporation. NCC serves approximately 28,000 lines in 3 states, including 7,000 lines in 12 local exchanges in Northwestern New Mexico. Frontier is the nation's largest communications services provider serving rural America. Frontier offers voice, broadband, satellite video, wireless Internet data access, data security solutions, bundled offerings, specialized bundles for residential customers, small businesses and home offices and advanced business communications for medium and large businesses in 27 states. Frontier's approximately 15,500 employees are based entirely in the United States. Frontier Communications Corporation has joined the ranks of the 100,000 Jobs Mission, a coalition of major corporations committed to hiring 100,000 transitioning service members and military veterans by 2020.

6. Geographic Area of the Program

The Program will be implemented on the eastern portion of the Navajo Reservation and near-reservation lands within the service territories of SWC and Frontier. All such lands are tribal trust lands or BIA (Bureau of Indian Affairs) allotment lands occupied by members of the Navajo Nation and are divided into local government communities known as Chapters. SWC's service territory covers 3,200 square miles and encompasses all or portions of 29 Navajo chapters (see census and income data in table 2 below), most of which are located within the

Eastern Navajo Agency in New Mexico. The Program will involve tribal customers residing in the Tohajiilee, Baca/Prewitt, Church Rock, Iyanbito, Red Rock (*Tse Lichii*), Rock Springs, Huerfano, Nageezi, Nenahnezad and San Juan Chapters⁸ where 30% of SWC's customers subscribe to Internet speeds ranging from 256 Kbps to 5.0 Mbps. In all aforementioned areas SWC offers voice and broadband services at FCC benchmark speeds either over a fixed wireless infrastructure, over copper landline, or a hybrid of both.

Table 3. Sacred Wind Service Territory Areas Used in Program by Navajo Chapter Area					
Chapter	Census Tract or CDP Code	Households	Population	Median household income	Control/Treatment
Tohajiilee	9406	530	1,591	\$20,521	Treatment
Baca/Prewitt	9460	287	789	\$19,427	Treatment
Church Rock	9439.01	879	2,868	\$22,639	Treatment
Iyanbito	9439.01	308	890	\$13,594	Treatment
Red Rock	9439.01	670	1,866	\$17,321	Treatment
Rocks Springs	9439.02	328	1,086	\$14,375	Treatment
Huerfano	9430	885	2,633	\$20,345	Control
Nageezi	50790	383	1,095	\$21,597	Control
Nenahnezad	51715	362	1,126	\$21,336	Control
San Juan ⁹	51715	182	569	\$21,336	Control

Income data: US Census 2000

Population/Housing data: US Census 2010

Frontier's service territory in New Mexico covers over 6,000 square miles and encompasses all or portions of 40 Navajo chapters, most of which are located within the Eastern Navajo Agency in New Mexico, and its service territory in Arizona covers over 9,000 square miles and encompasses all or portions of over 50 Navajo Chapters (see census and income data in table 3 above and table 4 below). The Program will involve tribal customers residing in the below listed Chapter areas.

Table 4. Frontier Service Territory Areas Used in Program by Navajo Chapter Area					
Chapter/Exchange	Zip Code	Households	Population	Median household income	Control/Treatment
Crownpoint	87313	837	2,278	\$29,861	Treatment
Torreon	87061	88	237	\$29,688	Treatment

⁸ See maps in Appendix 1 & 2

⁹ San Juan Chapter spun off from Nenahnezad Chapter in 2010, but data on both are often found combined.

Pueblo Pintado	87320	879	2,868	\$15,591	Treatment
Shiprock	87420	2497	8,295	\$14,902	Treatment
Tse Bonito	86515	134	299	\$25,000	Treatment
Navajo	87328	467	1,645	\$21,212	Treatment
Tohatchi	87325	590	808	\$16,384	Treatment
Twin Lakes	87325	330	1,052	\$18,750	Treatment
Naschitti	87325	103	301	\$17,333	Treatment
Newcomb	87455	280	420	\$14,476	Treatment
Toadlena	87324	148	339	\$14,148	Treatment
Sanostee	86054	133	371	\$13,547	Treatment
Black Mesa	86033	165	322	\$9,125.00	Control
Chinle	56503	1267	4518	\$18,636.00	Control
Cottonwood-Pinon	86510	256	904	\$13,864.00	Control
Dennehotso	86535	190	746	\$11,944.00	Control
Dilcon	86047	292	1184	\$16,957.00	Control
Fort Defiance	86504	1060	3624	\$30,492.00	Control
Ganado	86505	372	1210	\$32,635.00	Control
Greasewood	86505	142	547	\$12,157.00	Control
Kaibeto	86053	351	1522	\$29,948.00	Control
Kayenta	86033	1293	5189	\$31,837.00	Control
Lechee	86040	332	1443	\$39,891.00	Control
Leupp	86035	232	951	\$19,200.00	Control
Lukachukai	86507	479	1701	\$10,244.00	Control
Many Farms	86538	395	1348	\$22,768.00	Control
Red Valley	86544	51	169	\$15,199.00	Control
Rock Point	86503	166	642	\$23,514.00	Control
Rough Rock	86503	120	414	\$17,589.00	Control
Shonto	86054	175	591	\$26,528.00	Control
Teec Nos Pos	86514	211	730	\$12,639.00	Control
Toyei	86505	6	13	\$13,444.00	Control
Tsaile	86556	287	1205	\$16,292.00	Control
Tuba City	86045	2156	8611	\$46,342.00	Control
Wide Ruins	86502	18	176	\$17,813.00	Control
Window Rock	86515	827	2712	\$36,234.00	Control

7. Description of Partners

- a) Navajo Nation, Brian Tagaban, Executive Director of the Navajo Nation Telecommunications Regulatory Commission. The Navajo Nation will contribute to cover a portion of the marketing and plan development consulting expenses and will cover its own administrative expenses. Program role: Coordinate the Pivot Group and all pertinent Navajo Nation agencies assisting participants in the Program with

community outreach and digital literacy efforts. Coordination with all Navajo Nation regulatory authorities for authorization and oversight of studies conducted upon the Navajo People, namely the Navajo Human Research Review Board. Steering and review of the Program ensuring the study is in the best interest of the Navajo People and the Navajo Government.

- b) 1st-Mile Institute, Santa Fe, New Mexico, Richard Lowenberg, director. Program role: Plan Development, Program project management, data analysis, online resources coordination and final report. 1st-Mile Institute of New Mexico is an initiative to promote and help bring affordable, true First Mile broadband to and for all in New Mexico. The "First Mile" is based on a demand-side based understanding. It describes a local geographic orientation for telecommunications infrastructure and services deployment, with a democratic social and economic perspective, that focuses on the difference these systems and services will make in the quality of peoples' lives. Mr. Lowenberg prepared the New Mexico "Integrated Strategic Broadband Initiative" plan for New Mexico Governor Bill Richardson's Office; coordinated the statewide broadband stimulus application processes, and currently advises First Nations/First Mile networking initiatives in Canada. 1st-Mile Institute is an NTIA BTOP SBA "Fast Forward New Mexico" award partner.

(In order to further this Program, 1st-Mile Institute will apply for New Mexico Community Foundation and McCune Charitable Trust (McCune has provided past years' funding to 1st-Mile Institute), 2013-14 funding for additional broadband adoption and digital literacy educational outreach efforts. Richard Lowenberg has past and ongoing collaborative involvements with following partners: Lone Eagle Consulting, Davis Community Network and Global Center for Cultural Entrepreneurship, who together will develop and offer a suite of free online digital literacy tools and community relevant content and applications, as well as on-site training, for increased broadband adoption. 1st-Mile Institute will steward these partners' coordinated efforts to achieve best results in addressing all of the four primary goals of the FCC Pilot Program.)

- c) Lone Eagle Consulting of Dillon, Montana, Frank Odasz, principal. Program role: online training toolkit for digital literacy component. Lone Eagle Consulting maintains Internet training guides, resources, and online courses, requiring the least time and effort, to deliver the highest levels of benefit and motivation for people of all cultures and literacy levels. Its principal, Frank Odasz, has over 25 years experience and expertise on tribal and rural network education, providing a range of free online training and applications programs and tutorials. Lone Eagle Consulting has an on-

the-ground record of working with rural and tribal groups in New Mexico over many years.

- d) Davis Community Network of Davis, California. Program role: Provision of online training support for the Program's digital literacy component. Davis Community Network is a nonprofit organization that provides Internet-related services and support to local nonprofit organizations, public agencies, schools and individuals. The organization puts the power of the Internet in the hands of people and organizations to connect, engage, and build a stronger community.
- e) Global Center for Cultural Entrepreneurship, Alice Loy, Ph.D., director, and Bennie Francisco, programs manager. Program role: consulting toward the development of entrepreneurial information accessible to the Program's broadband portal. The Global Center for Cultural Entrepreneurship has worked in partnership with the City of Albuquerque, City of Santa Fe, City of Bernalillo, and the Mid-Region Council of Governments to form a destination marketing effort that will draw thousands of visitors into the diverse array of business related opportunities across the northern region of our state. As an NTIA BTOP SBA "Fast Forward New Mexico" award partner, and Kellogg Foundation grantee, GCCE has provided network literacy training in a number of Navajo Nation and NW New Mexico communities
- f) Native Resource Development Company (NRDC) of New Mexico, Penny Emerson, Randy Ash, directors. Program role: Collaborate on development of broadband-based home care services that can be added to the Program's broadband portal. NRDC provides personal care services that enable elderly and disabled people to remain in the comfort of their own homes and achieve the highest level of independence possible.
- g) Pivot Group, LLC., Mark Fordice, Principal, and Erik Doescher, Senior Marketing Consultant. Program roles: Assist in plan design, develop outreach plan and communication materials (customer letters, bill inserts, flyers, etc.), design and development of digital literacy webinars. Pivot Group is a full-service marketing and advertising agency that integrates research, marketing, branding and news media development for a complete marketing approach for its clients. The company has specific experience with broadband and telecommunications with clients in 44 states and Internationally. The company is fluent with Lifeline programs. Pivot designed SWC's broadband portal, DinehNet, which is acclaimed as the most culturally oriented web portal available to any tribal community in the United States. Mark Fordice has experience as a technical marketing consultant for Intel and as product manager for Boeing. Erik Doescher has 14 years of marketing experience, including development of marketing plans, branding and marketing and promotions.

8. Total Program Subsidy Required

The maximum total subsidy sought in this proposal from the FCC for discounted broadband services is \$461,697. This estimated amount is based on a total treatment group population of 700 subscribers calculated to be recruited and taking advantage of the discounted service as further described below and in Program Outreach Methodology beginning on page 19 of this proposal.

Through the Program's outreach initiatives it will be the Applicants' intent to recruit and sign up nearly all treatment group subscribers in the first 3-month ramp up period. Accordingly, the program could begin its field experiment with a full treatment and control group identified on day-one of the 12-month period. If this were to occur, the full subsidies required for the Program are outlined as follows:

Frontier with 300 treatment group members

- 300 customers x \$40.00 monthly discount x 12 months = \$144,000
- 300 customers x \$6.00 monthly modem rental fee waiver x 12 mo.= \$21,600
- Nonrecurring installation fee of \$134.99 x 300 = \$40,497
- Frontier total = \$206,097

Sacred Wind with 400 treatment group members¹⁰

- 400 customers x \$45 monthly discount x 12 months = \$216,000
- Nonrecurring installation/modem config fee of \$99 x 400 = \$39,600
- SWC total = \$255,600

Program total = \$461,697

The above required subsidy figure is a maximum amount needed. Because SWC is in a growth mode since its completion of much of its fixed wireless network, and is adding 60-70 new customers every month, SWC would like to include as many new customers in its treatment group as possible, up until the third or fourth month of the field experiment. If this were to occur, its offer of discounts may not apply to a full 12-months for a small number of its treatment group members. SWC estimates that the subsidy required for its monthly discounts could be reduced by as much as \$17,000.

9. Technology to be Used

¹⁰ One-half of SWC's treatment group population will be offered a \$40 discount; a 2nd half will be offered a \$50 discount, averaged out to \$45 for all treatment group members.

All of Frontier's customers and a portion of SWC's customers are served by copper landline to the home, reinforced in areas by fiber optic circuits back to the central office. Many of SWC's customers, and nearly all of its new customers, are served by fixed wireless radio units at the home. (SWC acquired 1,900 residential customers in 2006 connected by copper landline to Qwest Corporation's (now CenturyLink) "middle mile" network. Since then, SWC has rebuilt the network by installing its own central offices, and a fixed wireless infrastructure surrounding its 3,200 square mile study area. While a majority of the company's customers are currently served by copper wire, much of the expansion in subscriber base is by way of a fixed wireless system. Having installed two Metaswitch gateway switches and 44 OCCAM broadband loop carrier cabinets at "meet points" and at key community sites, the company's entire network is broadband accessible and built atop an Internet Protocol (IP) platform.

SWC's capacity to the network is provided by: 1) SWC's fixed wireless backhaul operating over 11.0 and 16.1 Ghz licensed spectrum from elevated tower sites to its central offices, 2) SWC's fiber optic trunks that connect the company's "meet points" where its landline customers' "last mile" converges; and 3) CenturyLink's T1 lines feeding several "meet points" where fiber cable has yet to be permitted. The company continues to pursue fiber connectivity to all of its "meet points" and backhaul microwave sites.

Customers that participate in the Program with SWC will be served by copper landline and fixed wireless antenna to the home, all capable of receiving up to 4 Mbps down/1 Mbps upload. For customers served by fixed wireless, a subscriber facing antenna operating at 3.65 Ghz licensed (registered) spectrum from the company's nearest communications tower transmits and receives a broadband pathway to the subscriber antenna affixed to the customer's home. In some cases, where customers have no reliable line of sight from the nearest company communications tower, an intermediate pole has been, or will be, installed to reach the customer. SWC's technicians install an Airspan Pro ST radio antenna and L-Com lightning protection device, connected to an Airspan modem, called an Analog Telephone Adapter (ATA) at a customer's premise. Standard inside telecommunications wiring, originating from the subscriber's outside radio unit, is installed in subscribers' homes and connected to a telephone jack and then to the ATA. The ATA has an Ethernet port for a computer connection, fixed or wireless, and an RJ-11 port for a common telephone connection.

10. Program Outreach Methodology

The Program's partners will finalize and implement the Outreach Plan during the ramp-up period, including promotions of the Program and recruitment of treatment group candidates. It is expected that an adequate job of promotion and recruitment will be started during the 3-month ramp-up period and that the nearly all of the 700 treatment group members will be signed

up by the first month of the 12-month study period or no later than into the 4th month of the Program's 12-month study period. A conservative projection of the broadband discounts to be provided over the life of the Program, begins with no less than 100 subscribers signed up by each ETC during the ramp-up period; they will each sign up an additional 100 subscribers each month during the first months of the 12-month study period and will retain 700 subscribers in the treatment groups for the succeeding months of the study period.

Treatment group candidates will be selected for Program participation in two ways: 1) through the Program's advertising and promotion, they contact the ETCs to sign up, and 2) they will be randomly selected by even or odd telephone number from the ETCs' lists of Tribal Lifeline voice customers not currently subscribing to broadband services and to all newly installed customers certified as eligible to participate in the Tribal Lifeline program.

Announcements in the Navajo Times newspaper (and possibly on Navajo language radio stations KTNN and KGAK), and information supplied to Chapter administrative offices will target the eligible customers in the geographic areas of the Applicants' treatment groups. The Applicants' customer service representatives will be trained to receive inquiries and orders for service under the Program and will proactively initiate calls to eligible customers as applicable.

There will be no particular outreach to control group members during the study period, but all Tribal Lifeline customers in the geographic areas of the Applicants' control group customers who either do not subscribe to broadband or who subscribe to Internet service at speeds below 1.0 Mbps download will comprise the pool of customers targeted for post-study questionnaires. Candidates for the control group will be randomly selected by even or odd telephone numbers. The Program partners will offer a prize for a randomly selected customer in the control group as an inducement for customers to complete the control group questionnaire.

11. Post Field Experiment Actions

Sharing Subscribers' Anonymized Data

This Program will be coordinated with New Mexico's NTIA funded 'broadband data gathering, mapping, planning, capacity building and technical assistance' project, directed through the State's Department of Information Technology (NM DoIT). Though details have not yet been finally determined, NM DoIT's Gar Clarke and contractor, UNM's BBER (Bureau for Business and Economic Research, have agreed to coordinate data gathering, analysis and verification for this Project's field study region, and to share anonymized data, as well as best practice determinations resulting from mutual efforts and desired long range outcomes. This coordinated approach will be reflected in both initiatives' Final Reporting to the FCC.

End of Program Period Notification to Customers

The Program will offer all treatment group customers the option of signing up for the discounted rate for an additional year in order to avoid “rate shock” immediately after the study period ends. Treatment group subscribers will be notified of this extension at the time of customer sign up and will not need an end of Program Period notification. A reminder notification, nonetheless, may be warranted and will be considered by the Applicants.

Low Income Broadband Pilot Program Reporting Form

Applicants and partners on this Program would like to work with USAC on data collection of subscriber demographics and broadband usage to be mutually determined prior to field study ramp-up, utilizing the recommended Low Income Broadband Pilot Program Reporting Form. Applicants and the Navajo Nation will provide on-the-ground assistance in communication with treatment group subscribers for effective understanding of the Program and to get individual data gathering and sharing consent as required.

Final Report

The Applicant’s partner, 1st-Mile Institute, will take lead responsibility for Program documentation, data and process tracking and Final Reporting, working in close coordination with all other Program partners, communities and subscribers (treatment and control groups). Final reporting will include detailed descriptions and results of all field study elements, as well as of additional data gathered, lessons learned, best practices and other outcomes.

Final Reporting will provide additional correlated data analysis and best practice recommendations on the integrated relationships and outcomes between broadband service pricing reductions, bandwidth services and a range of digital literacy, training, content, applications provision and specific socio-culturally relevant approaches for increasing broadband adoption.

In addition to FCC and USAC needs, this field study and its potential extension beyond the 12- month period is of great importance to the Applicants and the Navajo Nation, as they seek to better understand the most effective and appropriately serving business model for this regional populace in the longer term, and in order to address affordability and range of online applications and access means which will make increased broadband adoption a clearly agreed choice for existing and new subscribers.

As one Partner expresses: “In Native Resource Development’s (NRD) view, dealing with the elderly and disabled people who are isolated in rural areas has shown that such people’s lives could be vastly improved by helping to bridge for them the “digital divide. NRD looks to improve the quality of life of its homebound clientele through the objectives of this Program by:

- Directing clients to various home care, transport, health care and community communications services online.
- Accessing medical forms and authorizations, and updating their own medical information; and, improving information flow between clients and NRD’s agents and Caregivers.
- Providing online training to Caregiver who are required to maintain state certifications in First Aid, Blood Borne Pathogens, Fire and Home Safety and more. Low income themselves, many Caregivers miss these mandatory trainings due to lack of transportation and money for gas.
- Improving accountability by enabling Caregivers to record online in real time their time and work at clients’ homes, which adds protections for the company, for the customers, and may decrease the likelihood of Medicaid fraud.”

All partners on this Program are excited about this potential opportunity to find “the difference that makes a difference” in some of the most challenging areas of our country.

Exhibit 1

Sacred Wind Communications Exchange Boundary Map

Control & Treatment Group Area Designations

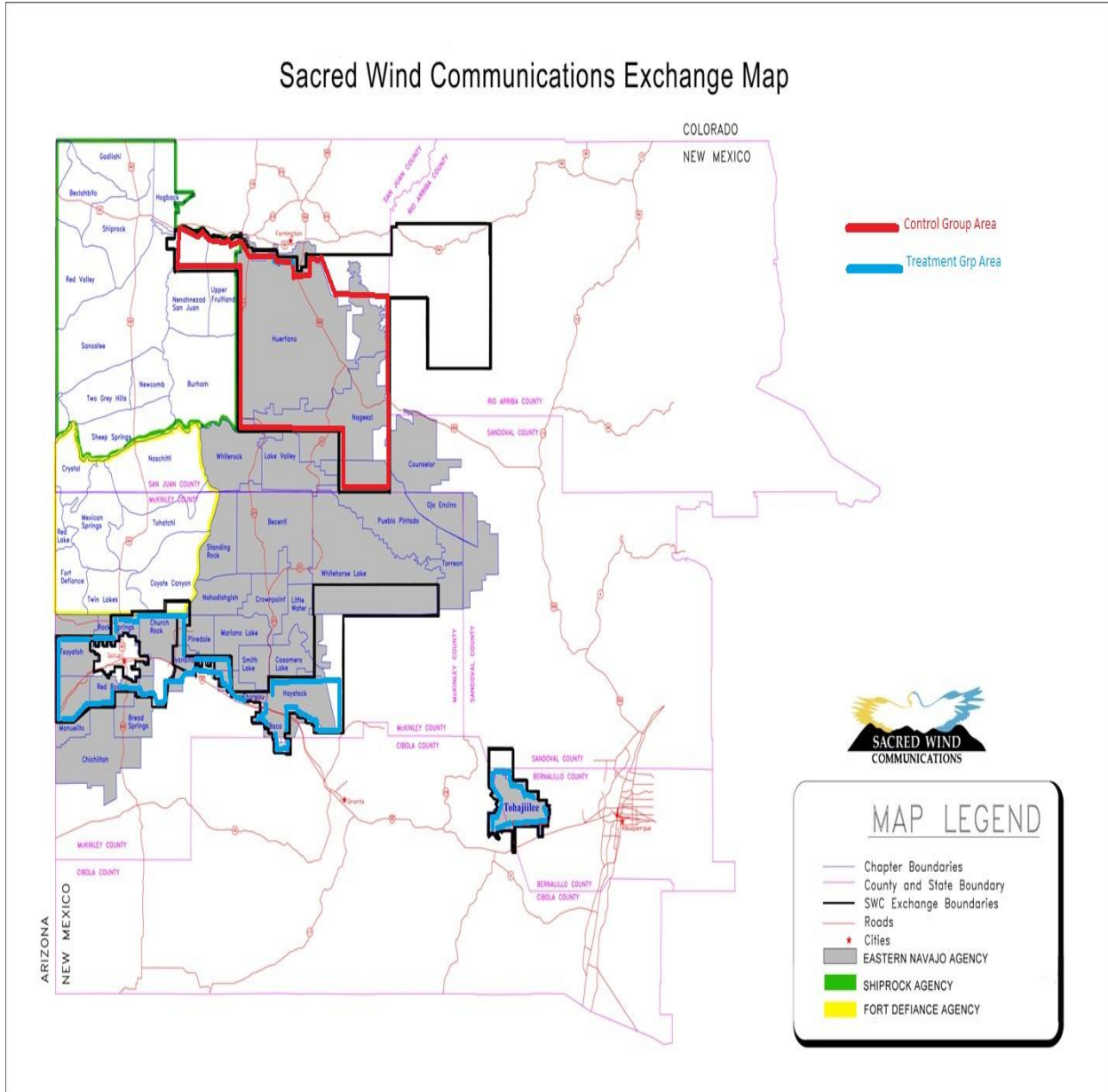


Exhibit 2

Frontier Wire Center Boundary Map Treatment Group Area - New Mexico Exchanges

New Mexico Exchanges	
Exchange	Community
368	Shiprock
371	Tse Bonito
655	Pueblo Pintado
696	Newcomb
723	Sanostee
731	Torreón
732	Naschitti
733	Tohatchi
735	Twin Lakes
777	Navajo
786	Crownpoint
789	Toadlena

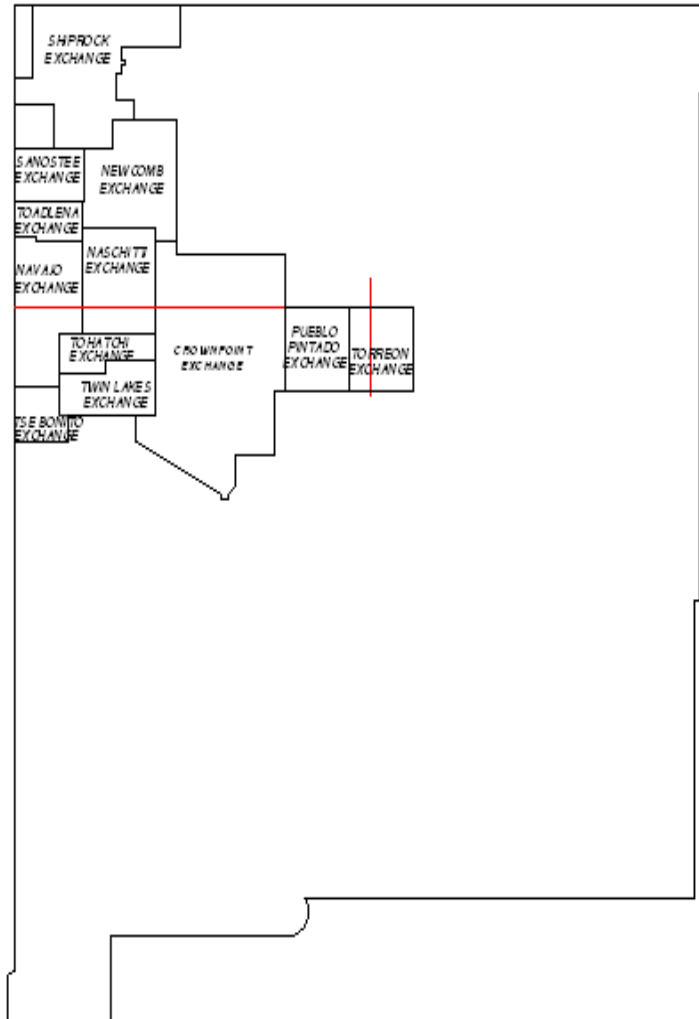


Exhibit 3
Frontier Wire Center Boundary Map
Control Group Area – Arizona Exchanges

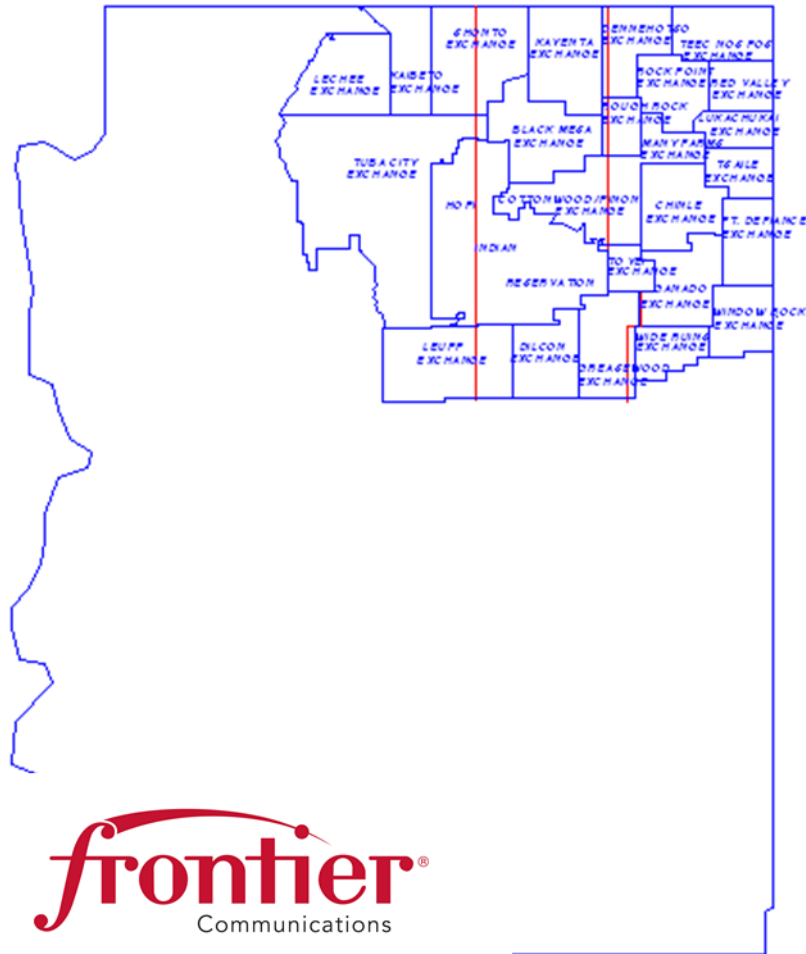
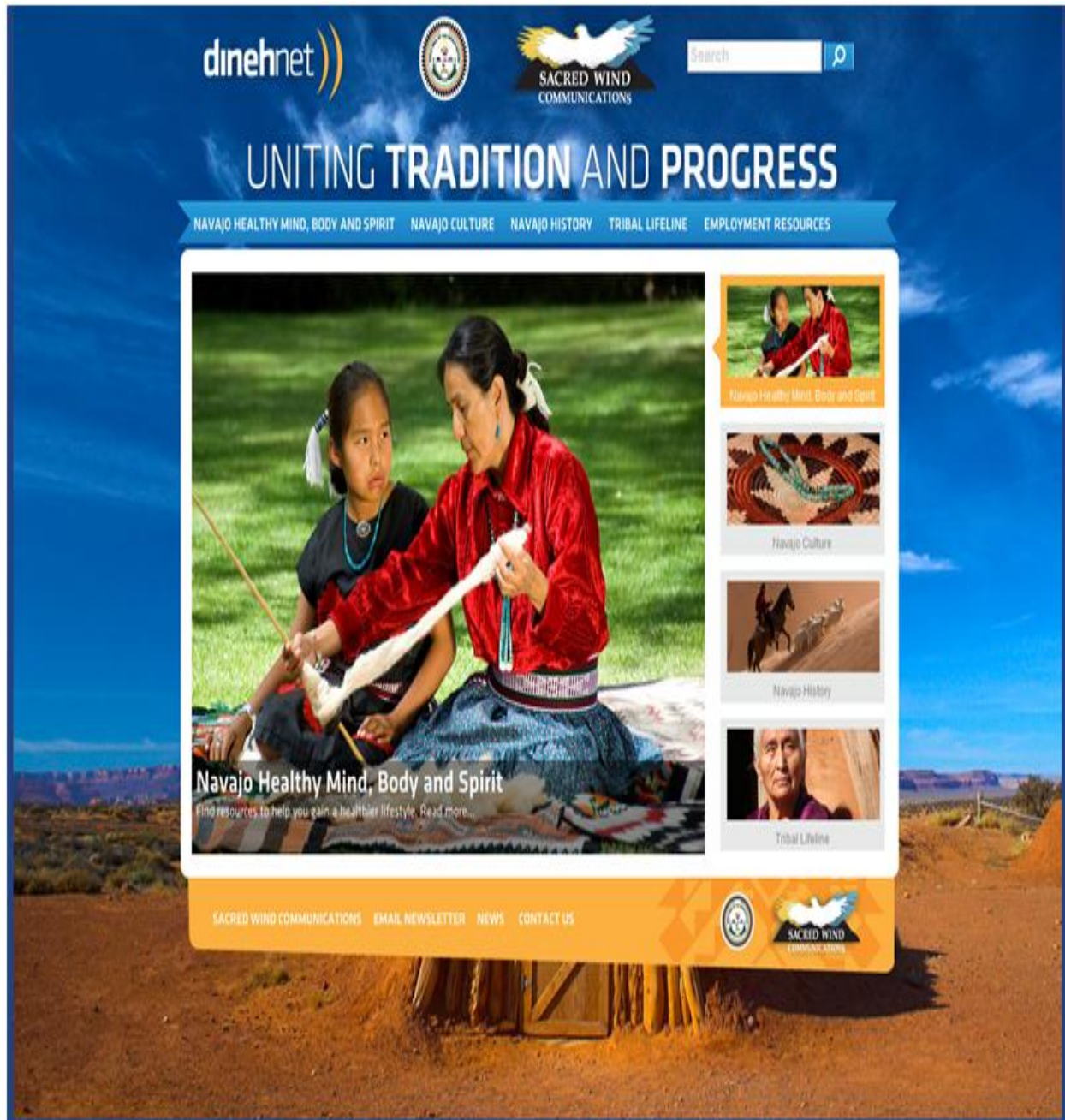


Exhibit 4.

SWC's DinehNet Broadband Portal





7801 Academy, NE building 2 - Room 104
Albuquerque, New Mexico 87109
Voice: 505-821-5080
Fax: 505-821-0226

June 27, 2012

Certification

To: Wireline Competition Bureau
Federal Communications Commission
Washington, DC

This is to certify that Sacred Wind Communications, Inc. intends to offer broadband service pursuant to the Federal Communications Commission's regulations for the Lifeline program.

Sincerely,

A handwritten signature in dark ink, appearing to read "JBAL", is written over a horizontal line.

John Badal, CEO



7801 Academy, NE building 2 – Room 104
Albuquerque, New Mexico 87109
Voice: 505-821-5080
Fax: 505-821-0226

June 27, 2012

Certification

To: Wireline Competition Bureau
Federal Communications Commission
Washington, DC

This is to certify that Sacred Wind Communications, Inc. will implement all necessary procedures and efforts to prevent waste, fraud and abuse in connection with its participation in the Pilot Program, including but not limited to procedures that the company will have in place to prevent duplicate broadband subsidies within its subscriber base, and procedures the carrier undertakes to de-enroll subscribers receiving more than one broadband discount per household.

Respectfully,

John Badal, CEO



7801 Academy, NE building 2 - Room 104
Albuquerque, New Mexico 87109
Voice: 505-821-5080
Fax: 505-821-0226

June 27, 2012

Certification

To: Wireline Competition Bureau
Federal Communications Commission
Washington, DC

This is to certify that Sacred Wind Communications' broadband service offerings will provide sufficiently low latency to enable use of real-time applications such as Voice over Internet Protocol (VoIP) and, if there are usage limits for each plan, that they are reasonably comparable to usage limits for comparable broadband offerings in urban areas.

Respectfully,

John Badal, CEO



7801 Academy, NE building 2 – Room 104
Albuquerque, New Mexico 87109
Voice: 505-821-5080
Fax: 505-821-0226

June 27, 2012

Certification

To: Wireline Competition Bureau
Federal Communications Commission
Washington, DC

This is to certify that Sacred Wind Communications' will participate in the collection of anonymized qualitative and quantitative data with standardized data elements, formatting, and submission requirements, and that Sacred Wind Communications will participate in workshops to discuss interim and final results of the project, and how best to use limited universal service funds to increase low-income consumers' adoption of broadband services.

Respectfully,

A handwritten signature in black ink, appearing to read "JBLE", is written over a horizontal line.

John Badal, CEO

June 28, 2012



To: Wireline Competition Bureau
Federal Communications Commission
Washington, DC

Certification

I hereby certify the following:

- A. That Navajo Communications Company, Inc. intends to offer broadband service pursuant to the Federal Communications Commission's regulations for the Lifeline program;
- B. That Navajo Communications Company, Inc. will implement all necessary procedures and efforts to prevent waste, fraud and abuse in connection with its participation in the Pilot Program, including but not limited to procedures that the Company will have in place to prevent duplicate broadband subsidies within its subscriber base, and procedures the carrier undertakes to de-enroll subscribers receiving more than one broadband discount per household;
- C. That Navajo Communications Company, Inc.'s broadband service offerings will provide sufficiently low latency to enable use of real-time applications such as Voice over Internet Protocol (VoIP) and, if there are usage limits for each plan, that they are reasonably comparable to usage limits for comparable broadband offerings in urban areas; and
- D. That Navajo Communications Company, Inc. will participate in the collection of anonymized qualitative and quantitative data with standardized data elements, formatting, and submission requirements, and that the Company will participate in workshops to discuss interim and final results of the project, and how best to use limited universal service funds to increase low-income consumers' adoption of broadband services.

Respectfully,

A handwritten signature in blue ink, appearing to read "K. Mason", with a long horizontal flourish extending to the right.

Kenneth Mason
V.P. Government & Regulatory Affairs
Frontier Communications Corporation
180 S. Clinton Ave., 5th Floor
Rochester, NY 14646